

SYSTEM AND METHOD FOR ATTITUDE CONTROL AND STATION KEEPING

Abstract

A system and method for supplying thrust to a structure, such as a satellite or spacecraft, for the purposes of station keeping and attitude control of the structure in low-gravity (orbital) and zero-gravity environments. The system includes devices for emitting energy beams and targets impacted by the energy beams to cause ablation of the targets. The beam-emitting devices and targets are adapted to cooperate and cause the structure to selectively undergo translational and/or rotational motion in reaction to the motion of material ablated from the targets. The position, alignment, and/or attitude of the structure can thereby be controlled in a zero or low-gravity environment by selectively emitting the energy beams at the targets.